From the third region the dredge brought up fewer though no less interesting specimens, the chief of which is a new Crinoid, belonging to the genus *Bourgueticrinus* of D'Orbigny; it may even be the species named by him *B. Hotessieri*, which occurs fossil in a recent formation in Guadaloupe, but of which only small pieces of the stem are known. I obtained half a dozen specimens between 230 and 300 fathoms, unfortunately more or less injured by the dredge.

The deepest cast made was in 517 fathoms; it gave a very handsome Mopsea, a crab, an Ophiurian, and some annelids.

The difference of the deep-sea faunæ of the opposite coasts of Cuba and Florida is very marked, although the distance is so small; of all the corals for, instance, described by me from the coast of Cuba, only two or three, and those in fragments, were found off the Florida reef.

The descriptions of the new species, with plates, are in preparation and will be published by the kindness of Prof. Agassiz in the next number of the illustrated Catalogue of the Museum of Comparative Zoology of Cambridge.

I am glad, also, to be able to say that Prof. Peirce, Superintendent of the Coast Survey, has directed me to continue these researches during the coming winter.

4. *On the genus Lælaps;* by Edward D. Cope. (Communicated for this Journal.)—As some confusion respecting the name of this genus has arisen, it appears best to attempt to correct it at as early a day as possible. This confusion, as it appears to me, has been created by remarks contained in an essay by Dr. Joseph Leidy, published in the last number of the Proceedings of the Academy, entitled "Remarks on a jaw-fragment of Megalosaurus."

In the Transactions of the American Philosophical Society, xi, p. 143, Dr. Leidy describes a large carnivorous reptile allied to Megalosaurus, under the name of *Dinodon horridus*. He assigns to it, with some expression of doubt, teeth of two distinct forms, viz: some having a lenticular transverse section, with crenation on the two margins in part, and others having a lenticular section, truncate to a greater or less degree, in place of its angles, and therefore crenate on three edges in part.

If Dr. Leidy had left the matter undecided as to which of these he regarded as the type of the genus *Dinodon*, the almost universal practice of naturalists would refer the name to that form which should not be first thereafter discovered to be distinct and named.

I have been of the opinion that the two forms of teeth included by Dr. Leidy under the head of Dinodon really belong to distinct animals, and Leidy is also of that opinion. In 1866, in describing the genus *Lælaps* (Proc. Acad., p. 279), I said: "The genus *Lælaps* belongs to the family *Dinodontidæ*, which is characterized * * by its compressed sabre-shaped teeth. It differs * * from Dinodon in that teeth of the latter have two posterior serrate edges separated by a posterior plane." This, then, according to the usage of naturalists, establishes the name of Dinodon for the truncate teeth, and Lælaps for the two-edged.

Dr. Leidy, however, in an essay just published (Proc. Acad., 1868, p. 198), in expressing his belief in the distinctness of the two genera, states that "teeth of like shape" (i. e., like Megalosaurus), "referred by me to Dinodon, alone belong to this genus," and names the species represented by the truncate teeth, or the true *Dinodon horridus*, *Aublysodon mirandus*. He then goes on to say: "Future discovery may prove Lælaps and Dinodon identical," and on p. 199: * * "An enemy which may perhaps on nearer comparison of corresponding parts prove to be another species of the same genus, until now supposed to be different, under the names of Dinodon and Lælaps." It is thus sufficiently obvious that the proposition is to refer Lælaps as a synonym of of Dinodon. It appears to me, on the other hand, that is contrary to the rules of nomenclature, and the principles which lie at their root, and that the name *Aublysodon* is a synonym of Dinodon.

This is, however, on the supposition that Leidy had left the question open or uncertain, as to which of the two forms of teeth was characteristic of his genus *Dinodon*. I think, however, he has not left it undecided, and I am supported in this by the opinion of von Meyer.

The teeth of Lælaps, both from New Jersey and Nebraska, do not differ from those of Megalosaurus, while those of Dinodon do. It was not to be supposed that Dinodon was established on teeth of the former character, as the practice of describing species and genera, without a basis of distinctive characters, is an unusual and bad one, and ought not to be tolerated in natural science.* In describing Dinodon, Leidy says the Lælaps-like teeth resemble those of Megalosaurus, and in his recent article in the Proc. Academy (p. 198), that they are "identical in character with those of Megalosaurus."

He, however, specifies that the truncate teeth of Dinodon are really those that characterize it, in the following words: "As the entire dentition of Megalosaurus has not yet been ascertained, it may turn out to be the case that in other parts of the jaws than those known it possesses teeth like the ones *above described as peculiar*. Should, on future discovery, such a condition of things be proved to exist, *Dinodon* would then cease to be anything more than a second species of Megalosaurus." The truncate teeth are then the "peculiar" feature of Dinodon, and all that prevents the species from being referred to Megalosaurus.

Von Meyer has understood this language as I have, and has believed that the teeth now ascribed by Leidy to *Aublysodon*, are really characteristic of Dinodon. He says (Palæontographica, vii, p. 267) that while some of the teeth are identical with those of Megalosaurus, "the others indicate such peculiarity, that Leidy,

* Falconer says of it: "It assumes a difference on theoretical grounds, where the direct evidence, so far as it goes, indicates the contrary; and its general adoption would tend to arrest on the threshold the investigation of the means through which remote geographical forms, presenting common characters, may have started from a common origin.—(*Nat. Hist. Review*, 1863, p. 64.)

who has made the investigation, thought it necessary to characterize the animal as distinct from Megalosaurus, under the name of *Dinodon horridus.*"

It is therefore evident that the Lælaps-like teeth described under Dinodon are really those that require a new name, if any. I will not give them a name, however, since there is no evidence that they differ from either Megalosaurus or Lælaps, though of course the probability is, that they belong to a species of the latter genus.

Although *Aublysodon* would thus be a synonym of Dinodon, it is not an altogether useless name, since the latter was given years ago to a genus of serpents by Duméril and Bibron, and may therefore be suppressed. The name of the family *Dinodontidiæ* also, which I gave in compliment to Dr. Leidy, may also be disused.

In the same way, a genus of extinct reptiles was distinguished as *Tomodon* Leidy, a name long since given to a genus of American serpents. Not liking to substitute a generic name given by another, by one of my own, I have requested Dr. Leidy to give me one by which to replace it.

The synonymy of these genera will then be

LÆLAPS Cope.

Dinodon Leidy, 1868, not of 1857.

LÆLAPS AQUILUNGUIS Cope, Proc. Ac. Nat Sci. Phil., 1866.

LÆLAPS MACROPUS Cope, sp. nov.—This species differs from the former in the relative proportions of the phalanges and tibia; the toes were relatively larger than in the preceding. Some of these bones are figured by Leidy (Cretaceous Reptiles), and described under the head of animals related to Hadrosaurus. It will be described more fully by me in my forthcoming memoir on the extinct reptiles of North America.

AUBLYSODON Leidy.

Dinodon Leidy, 1857, Proc. A. N. Sci. Phil., 1866, p. 198, not Duméril and Bibron.

AUBLYSODON HORRIDUS, *Dinodon horridus* Leidy, Trans. Amer. Philos. Soc., xi, p. 143. *Aublysodon mirandus* Leidy, Proc. Acad. Nat. Sci. Phil., 1866, 198.

5. *Considerations drawn from the study of Mole Crickets;* by SAMUEL H. SCUDDER, (from the Proceedings of the Boston Society of Natural History, vol. xi, January 22, 1868.)—Mr. S. H. Scudder stated that he had recently been studying the mole crickets with a view to their classification, and found that they were naturally divisible into two groups. For one he retained the name of *Gryllotalpa*, under which all the species had formerly been grouped, and to the other applied that of *Scapteriscus*. These two groups were separated by the following characteristics.

In *Scapteriscus* the posterior margin of the sternum of the eighth